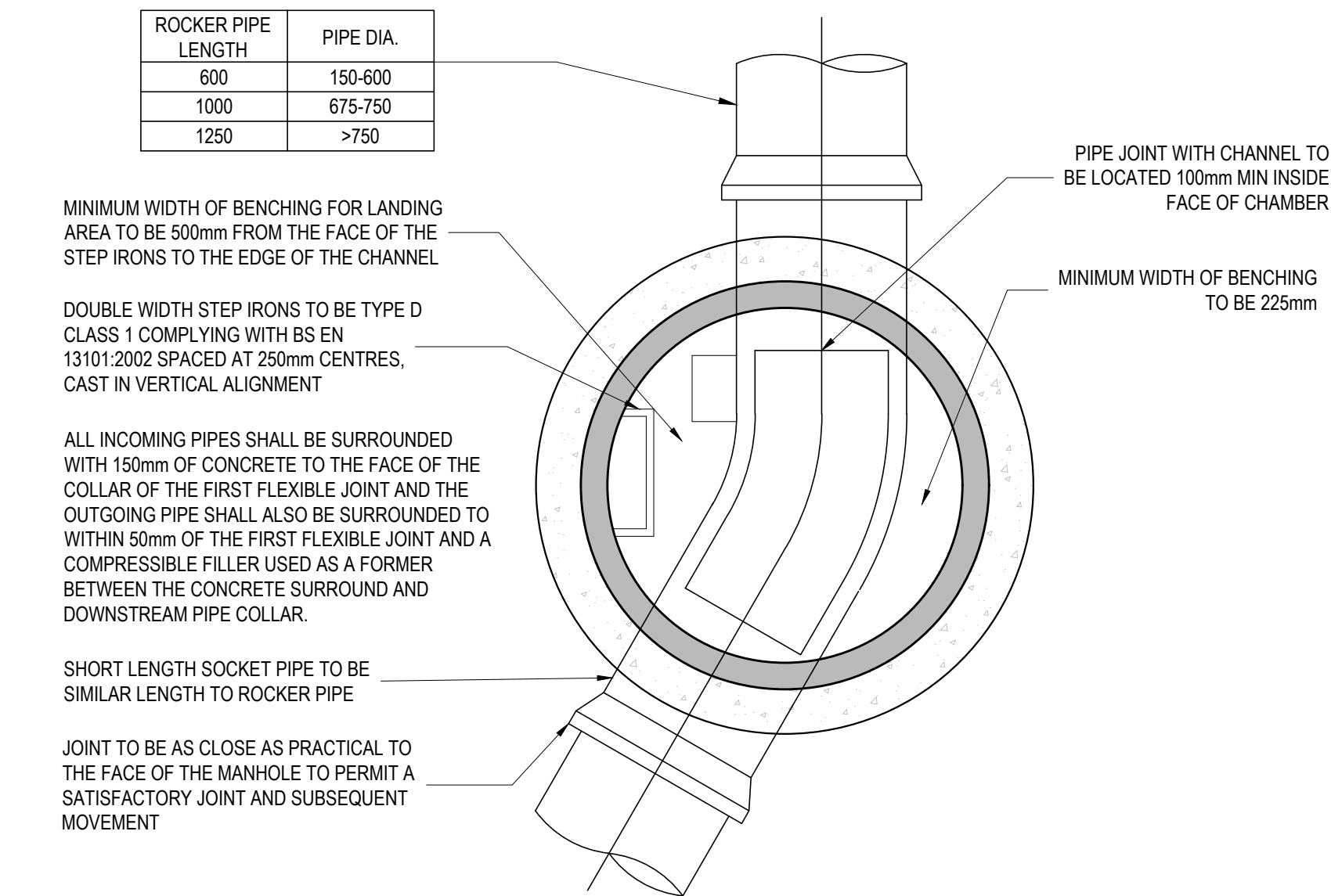
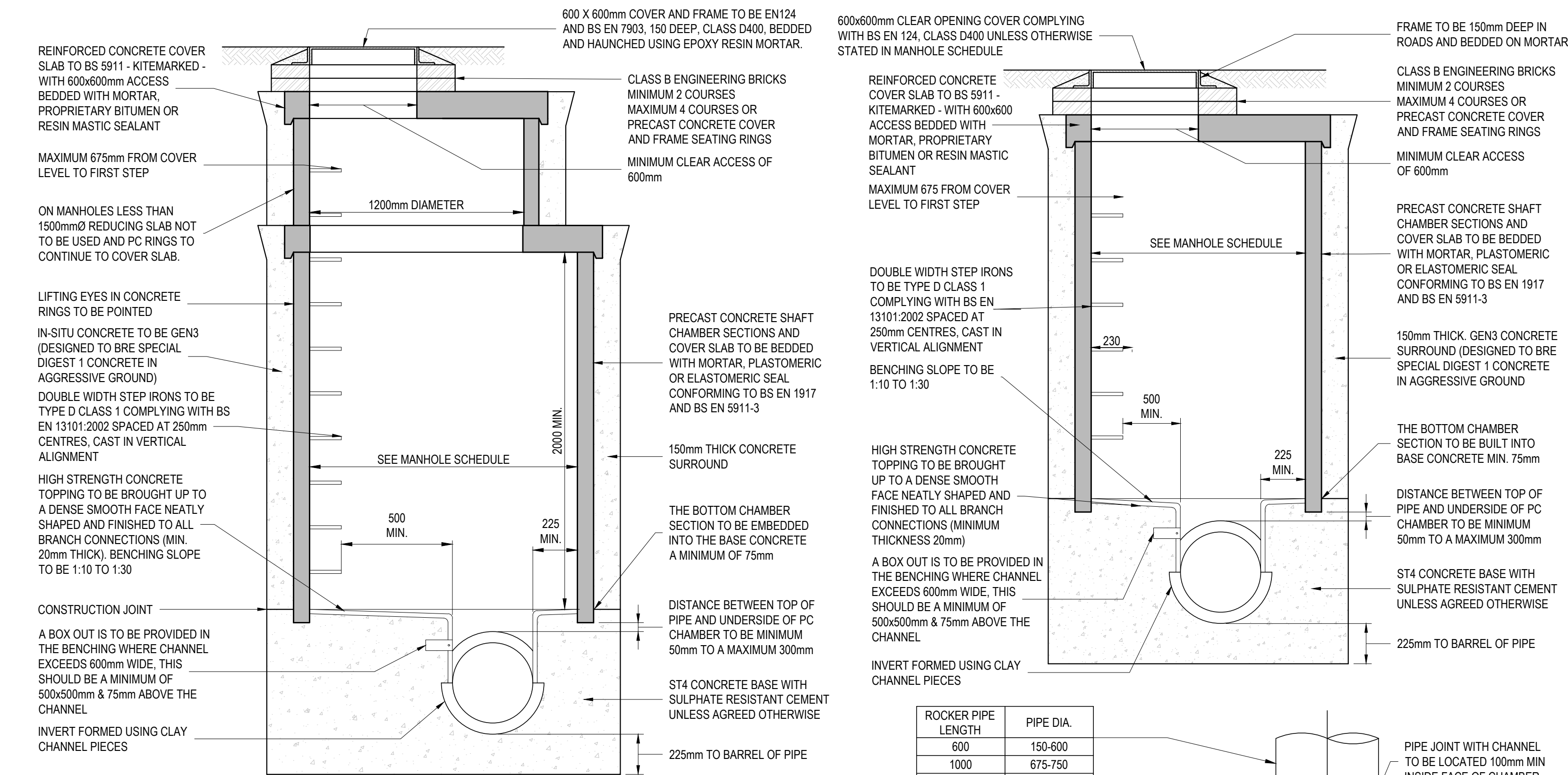
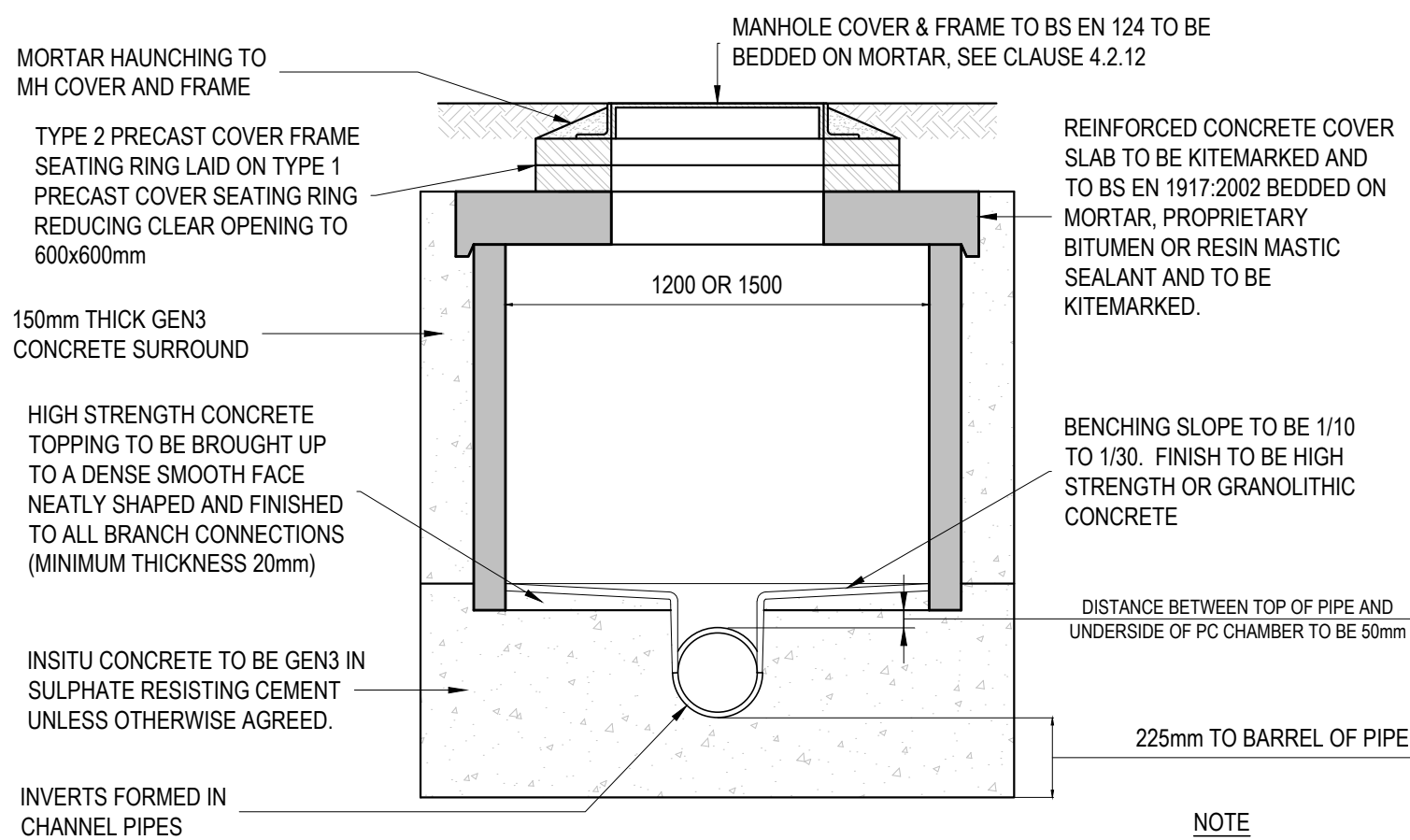
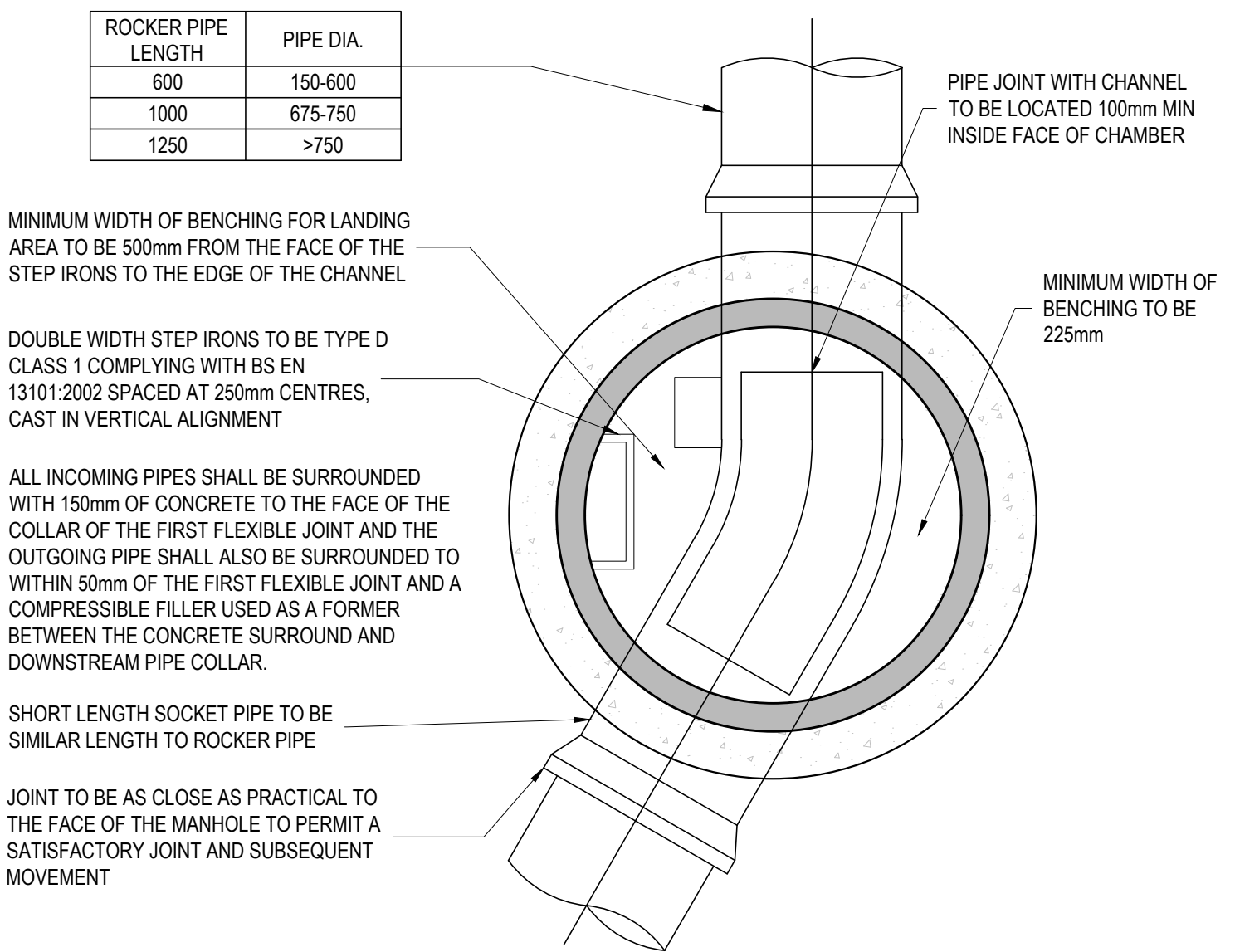
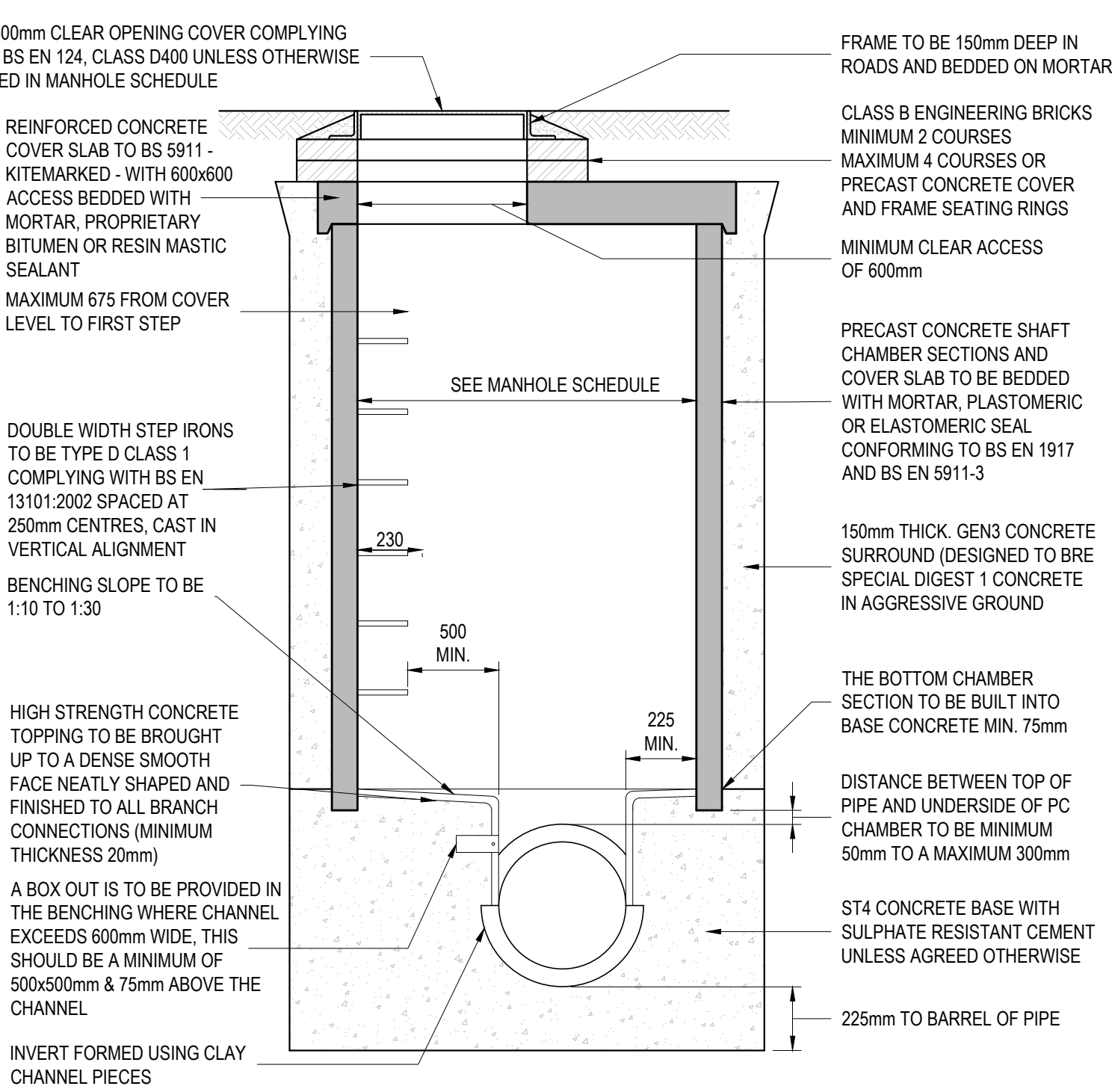




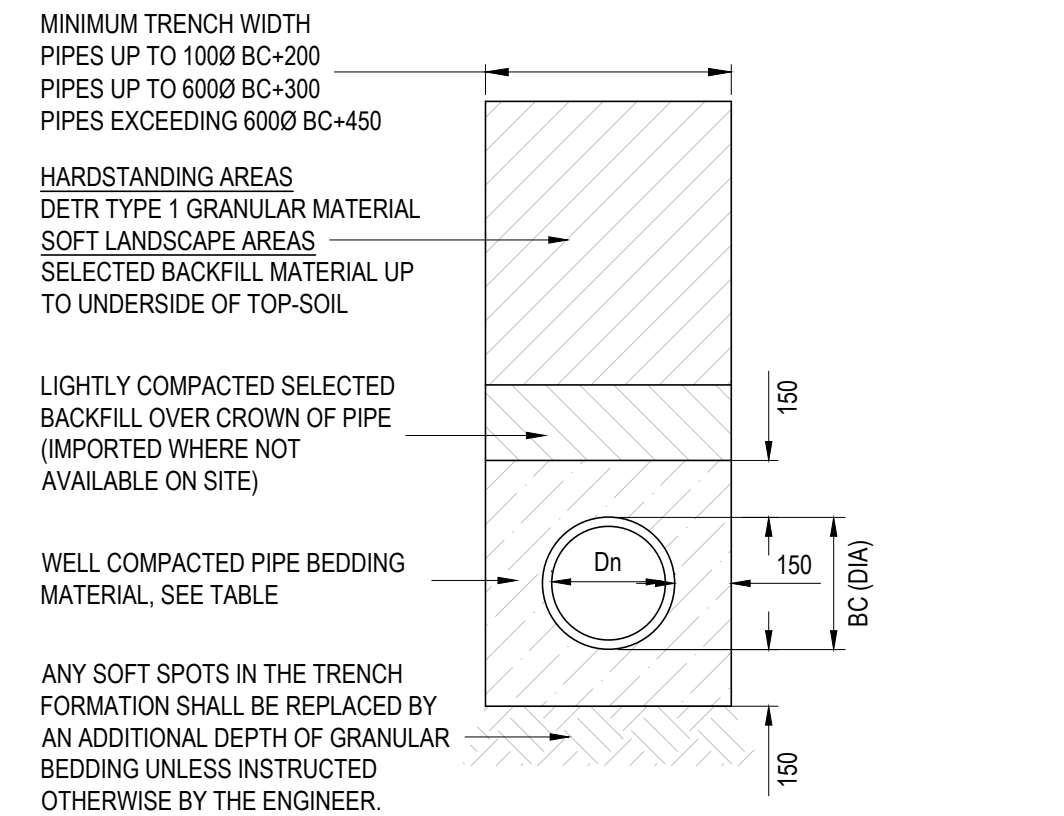
TYPICAL MANHOLE DETAIL - TYPE A
DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3m to 6m
SCALE 1:20



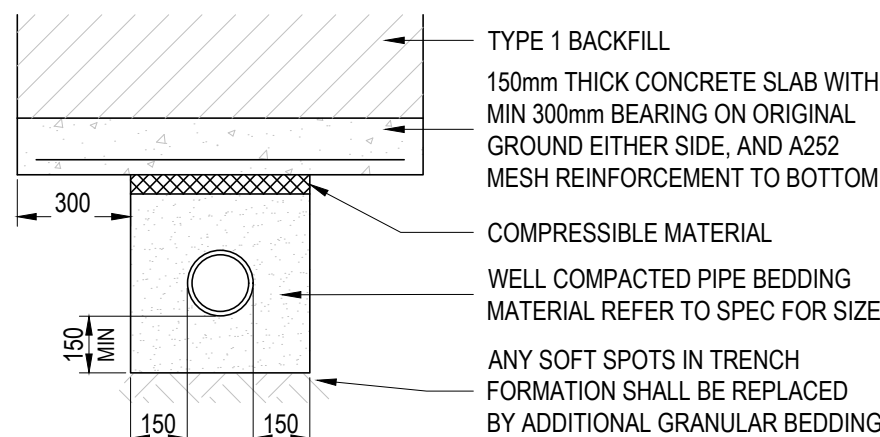
TYPICAL MANHOLE DETAIL TYPE B1E
DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 1m - 1.5m
SCALE 1:20



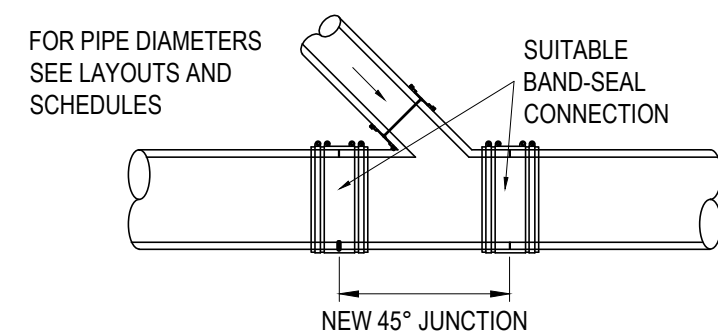
TYPICAL MANHOLE DETAIL TYPE B
DEPTH TO SOFFIT 1.5m - 3m
SCALE 1:20



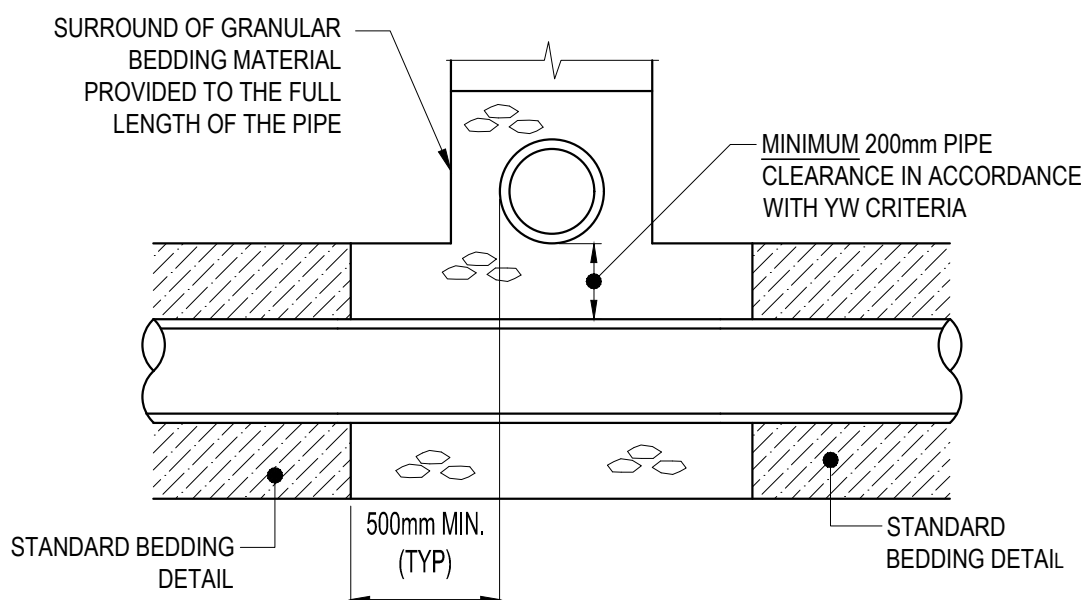
CLASS S - 360° GRANULAR SURROUND PIPE
BEDDING DETAIL
SCALE 1:20



CONCRETE SLAB PIPE PROTECTION
PIPE BEDDING AND SURROUND
SCALE 1:20



TYPICAL JUNCTION INSERTION DETAIL
SCALE 1:20



PIPE CROSSOVER DETAIL
SCALE 1:20

GENERAL NOTES:

- YORKSHIRE WATER NOTES
- ALL ADAPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6TH EDITION, THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM AND KITEMARKED
 - MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS
 - FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT
 - YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTERDRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADAPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION WITH REGARDS TO THE DISPOSAL OF FILTER DRAIN/LAND DRAIN RUNOFF
 - COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600mmx600mm FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CSPA), "TECHNICAL BULLETIN" ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES
 - SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OF A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY
 - THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FORM KERB FACES AND SERVICE MARGINS
 - SEWERS MUST HAVE A CLEARANCE FORM TREES AND HEDGES A MINIMUM OF THE CANOPY WIDTH AT MATURE HEIGHT (PLEASE ALSO REFER TO CLAUSE B3.1.13 IN "SEWERS FOR ADOPTION" 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS)
 - SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED AND SURROUND), WHERE DEPTHS OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2M IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND
 - BEDDING AND BACKFILL TO CONFORM TO THE REQUIREMENT OF THE WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE 2)
 - THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS
 - YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1050mm DIA MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE TYPE "B" MANHOLE WITH 1200mm DIA OR 1500mm DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER IS 1-1.5M

P01	FIRST ISSUE	28/08/20	OT	NT
Rev:	Description:	Date:	By:	Chkd:

curtins

Rose Wharf, Ground Floor, 78-80 East Street, Leeds, LS9 8EE
0113 274 8809
leeds@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kentish • Leeds • Liverpool • London • Manchester • Nottingham

Status: ISSUED FOR INFORMATION **S2**

Project: INTERCHANGE 26

Orig Title: S104
DRAINAGE DETAILS
SHEET1

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	28/08/20	OT	OT	NT
Scale:	AS SHOWN			